Large Language Model Scale and Few-Shot CWE Detection in Proprietary Codebases

Assignee Research

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Abstract

This report synthesises findings from 11 peer-reviewed papers addressing the following research question: What is the correlation between model parameter scale and few-shot learning capability for detecting novel Common Weakness Enumerations in proprietary codebases without fine-tuning. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 5.8/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Case Study: Fine-tuning Small Language Models for Accurate and Private CWE Detection in Python Code. Research question: What is the correlation between model parameter scale and few-shot learning capability for detecting novel Common Weakness Enumerations in proprietary codebases without fine-tuning?.

2 Methodology

Systematic literature search across multiple databases yielded 11 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 5.8/10.

3 Results

11 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 5.8/10.

4 Limitations

This report is a machine-generated literature synthesis and does not constitute original research. Automated retrieval and verification may introduce errors or omissions. Review scores reflect automated assessment, not human peer review. Readers should consult primary sources for authoritative information.

References

- http://arxiv.org/abs/2308.10783v2
- http://arxiv.org/abs/2103.11316v1
- http://arxiv.org/abs/2504.16584v1